Artificial Intelligence and Jobs: Evidence from Online Vacancies

Abstract

We study the impact of artificial intelligence (AI) on labor markets using establishment-level data on the near universe of online vacancies in the United States from 2010 onward. There is rapid growth in AI-related vacancies over 2010–18 that is driven by establishments whose workers engage in tasks compatible with AI's current capabilities. As these AI-exposed establishments adopt AI, they simultaneously reduce hiring in non-AI positions and change the skill requirements of remaining postings. While visible at the establishment level, the aggregate impacts of AI-labor substitution on employment and wage growth in more exposed occupations and industries is currently too small to be detectable.